

CASE REPORT

Peripancreatic Tuberculous Lymphadenopathy. An Impostor Posing Diagnostic Difficulty

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ABSTRACT

Context Involvement of the peripancreatic lymph nodes by tuberculosis is rare and the clinical presentation varies. It can mimic cystic neoplasms of the pancreas.

Case report We report the case of a patient having peripancreatic tuberculosis who presented with fever, jaundice, supraclavicular lymphadenopathy and weight loss. Imaging and tumor markers also suggested a pancreatic malignancy. MRI helped to identify the peripancreatic lymph node involvement and biopsy of the supraclavicular lymph node clinched the diagnosis.

Conclusion Pancreatic and peripancreatic tuberculosis should be considered in the differential diagnosis of cystic lesions of the head of the pancreas.

INTRODUCTION

Tuberculosis involving the pancreas or the pancreatic bed and its draining peripancreatic nodes is rare [1]. Clinical presentation is protean, posing diagnostic challenges [2]. We report a case of peripancreatic lymph nodal tuberculosis which masqueraded as a cystic neoplasm of the head of the pancreas.

CASE REPORT

A 42-year-old housewife presented with mild jaundice (non-cholestatic), intermittent high grade fever with chills and rigors for 2 weeks.

She also had pain localized to the epigastrium, which increased with the ingestion of food. There was no radiation of pain to the back. She had severe anorexia and her weight loss was significant. On examination, the patient was emaciated, had mild icterus and a 3x3 cm, firm left supraclavicular lymph node which was fixed and non-tender. The liver was not enlarged and the gallbladder was not palpable.

A hemogram revealed a hemoglobin level of 9 g/dL (reference range: 12-16 g/dL), a total leucocyte count of 8,400 mm⁻³ (reference range: 4,300-10,800 mm⁻³), a differential count of P82 L 17 E1, and an ESR of 60 mm/h (reference range: 0-20 mm/h). A peripheral smear showed microcytic hypochromic anemia. Blood sugar was 93 mg/dL (reference range: 75-115 mg/dL), blood urea 24 mg/dL (reference range: 15-40 mg/dL) and serum creatinine 1 mg/dL (reference range: 0-1.5 mg/dL). Chest X ray was normal. Serum bilirubin was 8.4 mg/dL (reference range: 0.3-1.0 mg/dL), conjugated fraction 6.0 mg/dL (reference range: 0.1-0.3 mg/dL), serum alkaline phosphatase 1,120 IU/L (reference range: 30-120 IU/L), serum aspartate amino transferases and alanine amino transferases were 179 IU/L (reference range: 0-35 IU/L) and 98 IU/L (reference range: 0-35 IU/L), respectively. Serum amylase was 83 U/L (reference range: 60-180 U/L). Serology for HIV I and II were negative. Blood and urine culture were sterile.



Figure 1. CT abdomen showing a multiloculated, hypoattenuated space-occupying lesion (arrow) in the head of the pancreas.

On two occasions, fine needle aspiration cytology from the supraclavicular lymph node revealed only a few inflammatory cells. An excision biopsy of the node showed caseating granulomas and smear was positive for acid fast bacilli.

On ultrasonogram, the liver was 8 cm in size with normal echotexture. The spleen was 12 cm in size. The gallbladder, portal vein and biliary system were normal. A 38.2x24.4x30.4 mm cystic lesion was seen in the region of the head of the pancreas. The pancreatic duct was normal. Upper endoscopy was normal. Contrast enhanced computerized tomography (CECT) (Figure 1) showed a multiloculated hypo-attenuated space-occupying lesion, 14 HU, measuring 3.8x2.6x3.0 cm with a well-defined thick hyper-attenuated wall, which enhanced with contrast. Serum CA 19-9 was 256 U/mL (reference range: 0-40 U/mL). Magnetic resonance imaging (Figure 2) of the abdomen showed a 3x1.6 cm thin walled lesion with central necrotic areas and rim enhancement adjacent to the origin of the hepatic artery, possibly a lymph node in peripancreatic bed. The contents showed increased T2W and T1W signals, suggestive of an abscess. Enlarged necrotic lymph nodes were also seen anteriorly and to the right of the head of the pancreas compressing the common bile duct and the portal vein with minimal dilatation. The pancreas was normal. A diagnosis of tuberculous adenitis involving nodes of the para-aortic region and the peripancreatic bed with minimal pressure

effect on the common bile duct was made. The patient responded to anti-tuberculous treatment. Jaundice subsided and a rescan of the pancreatic bed 6 months later was normal.

DISCUSSION

Tuberculosis is a major health problem in developing countries and, with the HIV epidemic, resurgence of this disease has been noted in the western world as well. Autopsy series have reported involvement of the pancreas in 2.1 to 4.7% [3, 4]; most series have included peripancreatic tuberculosis as well [5]. However, a series of 300 patients in India did not note even a single case of pancreatic tuberculosis [6].

Pancreatic and peripancreatic lymph nodal tuberculosis can present with a wide spectrum of symptoms. These include upper abdominal pain, pyrexia of unknown origin, obstructive jaundice mimicking pancreatic carcinoma, acute pancreatitis, pancreatic abscess refractory to antibiotics, massive gastrointestinal hemorrhage due to duodenal wall erosion, splenic vein thrombosis, chronic pancreatitis and non-specific symptoms with weight loss [2]. There are reports involving pancreatic resections due to the fact that malignancy cannot be excluded pre-operatively [5].



Figure 2. MRI showing thin walled lesion with central necrotic areas and rim enhancement.

Diagnosing pancreatic tuberculosis is often difficult. It may present as complex cystic lesions which mimic cystic neoplasms of the pancreas. The cystic nature and enhancement of the wall with contrast suggest a central necrosis [7]. Histopathological or microbiological evaluation can confirm the etiology [8]. With the advent of ultrasound, CT scan and endoscopic ultrasound (EUS), guided aspiration and definitive tissue diagnosis is feasible. Image-guided FNA biopsy of the pancreas, a safe procedure, has an overall sensitivity of 64-98%, specificity of 80-100% and positive predictive value of 98.4-100% [9]. An EUS is today considered as the most suitable investigative tool for differentiating a benign from a malignant pancreatic lesion. It provides an accurate and safe diagnosis without the risk, cost and time delay involved in open biopsy or laparotomy. In a study by Volmar *et al.* [10], a logistic regression analysis showed that, for lesions less than 3 cm, EUS-guided FNA had a higher accuracy than US or CT guided-FNA and no significant difference was seen for larger lesions or for the number of FNA passes. Tumor seeding along a needle tract is an established complication of the percutaneous sampling of pancreatic masses under CT or transcutaneous US guidance. The risk of peritoneal carcinomatosis is lower with EUS-guided FNA as compared to transcutaneous sampling methods, which is a definitive advantage [11]. In our patient, an EUS-guided FNA/biopsy of the peripancreatic bed would have clinched the diagnosis. When not available, expensive investigations like CECT and MRI with guided biopsy have to be resorted to. Confirmed tissue diagnosis of the supraclavicular lymph node obviated the need for a histological confirmation of tuberculosis in the peripancreatic bed.

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